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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,242	06/26/2003	Jonathan D. Barry	866.42811X00	4296
20457	7590	05/28/2004	EXAMINER	
ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-9889			VAN, QUANG T	
		ART UNIT	PAPER NUMBER	
			3742	

DATE MAILED: 05/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/606,242	BARRY, JONATHAN D.
Examiner	Art Unit	
Quang T Van	3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_ is/are allowed.
- 6) Claim(s) 1-30 is/are rejected.
- 7) Claim(s) \_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 26 June 2003 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | Paper No(s)/Mail Date. ____.  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>06/26/2003</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: ____.                                    |

***Specification***

1. The abstract of the disclosure is objected to because the legal phraseology such as "**comprises**" or "comprising" often used in patent claims should be avoided in the abstract. Correction is required. See MPEP § 608.01(b).
2. The specification is objected to because of the following informalities: "**vanes 14**" recited on page 1, par. 0002, lines 7 has a typo error and should be changed to "vanes **16**". Correction is required.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

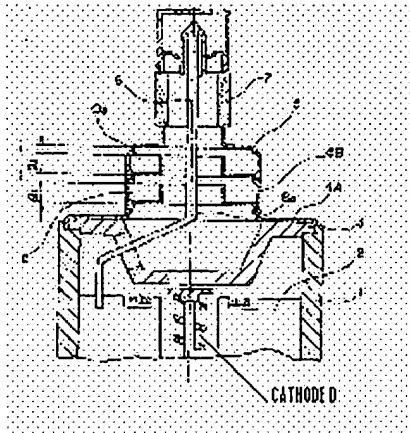
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3-4, 16, 18-19, 29-30 are rejected under 35 U.S.C. 102(b) as being anticipated by JP52-72561 cited by applicant. JP52-72561 discloses a magnetron comprising an anode cylinder (1); a cathode (5) disposed within the anode cylinder; a plurality of vanes (2) extending inward from the anode cylinder (1) so as to form a plurality of resonance cavities; an electrically insulative magnetron chamber wall (12) coupled to the anode (1); an antenna (13), coupled to at least one of the vanes (2), located within an evacuated chamber of the magnetron which provides an output of microwaves passing through the electrically insulative magnetron chamber wall (12) when the magnetron is operating; and at least one baffle (14) disposed in lines of sight

between the cathode (5) and the electrically insulative magnetron chamber wall (12) including substantially all of a periphery and a top of the electrically insulative magnetron chamber wall (12) through which the microwaves pass with metallic material emitted from the cathode being deposited on the at least one baffle (14) instead of on the electrically insulative magnetron chamber wall (12) with the at least one baffle comprising at least one planar plate (14) which is substantially orthogonal to a longitudinal axis of the magnetron.

5. Claims 29-30 are rejected under 35 U.S.C. 102(b) as being anticipated by JP02-230640 cited by applicant. JP02-230640 discloses a magnetron comprising an anode cylinder (1); a cathode (D) disposed within the anode cylinder (1); a plurality of vanes (2) extending inward from the anode cylinder (1) so as to form a plurality of resonance cavities; an electrically insulative magnetron chamber wall (7, figure 1) coupled to the anode (1); an antenna (6), coupled to at least one of the vanes (2), located within an evacuated chamber of the magnetron which provides an output of microwaves passing through the electrically insulative magnetron chamber wall (7) when the magnetron is operating; and at least one baffle (2) disposed in lines of sight between the cathode (D) and the electrically insulative magnetron chamber wall (17) including substantially all of a periphery and a top of the electrically insulative magnetron chamber wall (7) through which the microwaves pass with metallic material emitted from the cathode being deposited on the at least one baffle (2) instead of on the electrically insulative magnetron chamber wall (7).



***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2, 6-9, 11, 17, and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP52-72561 cited by applicant, in view of Kinuno et al (US 4,855,645). JP52-72561 discloses substantially all features of the claimed invention except the at least one baffle is connected to one of the pole pieces. Kinuno discloses a magnetron having at least one baffle (32) is connected to one of the pole pieces (29, figure 4). It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize in JP52-72561 at least one baffle is connected to one of the pole pieces as taught by Kinuno in order to prevent metallic material deposited on the electrically insulative magnetron chamber wall.

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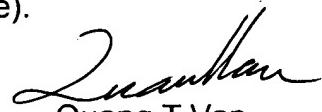
8. Claims 5, 10, 12-15, 20, and 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP52-72561 cited by applicant, in view of Kinuno et al (US 4,855,645) and further in view of Ishii et al (US 2004/0021422). JP52-72561/Kinuno disclose substantially all features of the claimed invention except the closed wall and the segment of the antenna suppresses a 5<sup>th</sup> harmonic of the fundamental frequency. Ishii discloses closed wall and the segment of the antenna suppresses a 5<sup>th</sup> harmonic of the fundamental frequency (page 1, par. 0007, lines 1-5 and page 2, par. 0019). It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize in JP52-72561/Kinuno closed wall and the segment of the antenna suppresses a 5<sup>th</sup> harmonic of the fundamental frequency as taught by Ishii in order to improve the output power of the magnetron.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quang T Van whose telephone number is 703-306-9162. The examiner can normally be reached on 8:00Am 7:00Pm M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on 703-305-5766. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

QV  
May 26, 2004

  
Quang T Van  
Primary Examiner  
Art Unit 3742